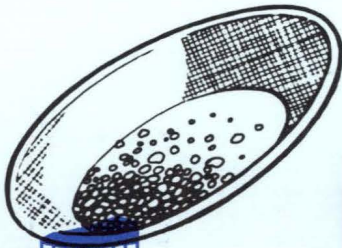


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BEAVER CREEK

Placer Mining



Record of Decision



U.S. Department of the Interior
Bureau of Land Management
Alaska State Office
1989

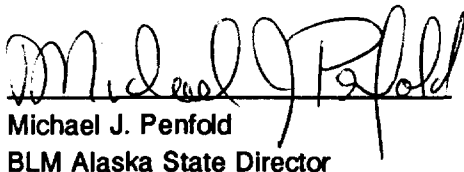
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Record of Decision

Beaver Creek Placer Mining
Cumulative Environmental Impact Statement

Bureau of Land Management
Alaska State Office
222 West 7th Avenue, #13
Anchorage, Alaska 99513

Cooperating Agency
U.S. Army Corps of Engineers Alaska District


Michael J. Penfold
BLM Alaska State Director

FEB 10 1989

Date

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Summary

The Bureau of Land Management (BLM) manages mining under the General Mining Law of 1872, 30 U.S.C. 22 et seq., as amended, and the Federal Land Policy and Management Act (FLPMA) of 1976, 43 U.S.C. 1701 et seq. The 1872 Mining Law provides for the exploration, development, production, and purchase of mineral resources of the public lands, as well as the right of reasonable access to mining claims. In approving Plans of Operations, BLM follows its resource management and river management plans as well as all other applicable legal requirements.

A United States District Court for the District of Alaska Memorandum and Order (A86-083 Civil) filed on May 14, 1987, instructed the BLM to cease approving Plans of Operations for federal placer mines after the end of the 1987 mining season in the Birch Creek watershed pending completion of an adequate cumulative effect Environmental Impact Statement (EIS). On May 28, 1987, Injunctions followed covering the watersheds of Beaver Creek, the Fortymile River, and Minto Flats (which is comprised of the Chatanika River, Tolovana River, and Goldstream Creek).

BLM chose to assess the cumulative impacts caused by placer mining on the Beaver Creek watershed through the EIS process. The EIS is an overarching environmental document from which more site-specific Environmental Assessments (EAs) can be tiered.

Plans of Operations submitted to BLM are required to specify how the proposed mining operation, including access, will be conducted. BLM will prepare a site-specific EA for each proposed operation. This analysis will identify more detailed and site-specific actions, impacts, and mitigation measures to reduce potential unnecessary or undue degradation. Each EA will also consider if there are any changes needed in the nature and extent of the mitigation for cumulative impacts addressed in the Beaver Creek EIS. If so, supplemental mitigative measures for a proposed mining operation in the watershed may be required. If BLM determines that a proposed mining operation would cause significant impacts that cannot be mitigated, and which would result in unnecessary or undue degradation, an EIS will be required.

Based on the U.S. Environmental Protection Agency's (EPA) reviews of the draft and later, the final EIS, and its determination that "Significant impacts to water quality, fish and wildlife habitat, vegetation, and wetland functional values would occur under the Proposed Action given the limited mitigation incorporated into this alternative...", specific mitigation measures, reclamation and performance standards, among others, were incorporated into the FEIS and the Record of Decision (ROD), respectively, for the Beaver Creek FEIS.

BLM also solicited input from the public, interest groups, industry, and other agencies. Suggestions, data, and analysis were incorporated into both the draft and final EISs. Based on a review of the final EIS for Placer Mining in the Beaver Creek drainage and consideration of all oral and written comments received throughout the EIS process, BLM will implement the Proposed Action as described below:

Decision

The decision is to manage mining claims on federal lands in accordance with the BLM Surface Management Regulations in 43 CFR 3809 that became effective January 1, 1981, and to prevent unnecessary or undue degradation to the public lands.

The water quality performance standards shall be those issued by EPA National Pollutant Discharge Elimination System permits and certified by the Alaska Department of Environmental Conservation (ADEC). These guidelines and standards apply to all placer mining operations in Alaska. The current EPA effluent limitations guidelines were published in 53 Federal Register pages 18,764, 18,788 - 18,790 on May 24, 1988. Comments on the proposed revisions to the effluent limitations guidelines were reviewed and considered; however, EPA determined no further changes or modifications were warranted, and published its decision to uphold the May 24, 1988, promulgation of the revised guidelines in the January 3, 1989, Issue of the Federal Register (54 Federal Register No. 1, pages 25-28).

To avoid unnecessary or undue degradation, tailings, ponds, and soils will be stabilized, stream channels will be restored where appropriate, and the site will be reclaimed in a manner that provides for natural revegetation. Site reclamation will be completed in a manner that minimizes non-point source erosion and enhances natural revegetation. The following reclamation performance standards will be conditions of approval:

Reclamation Performance Standards

- A. Where available, topsoil and overburden will be separately stockpiled during operations and stabilized to reduce erosion.
- B. The mine site will be reshaped to blend with surrounding physiography using mine tailings and overburden. Stockpiled topsoil will be spread over the reshaped mine site. If available quantities of topsoil are insufficient to promote adequate revegetation of the site, the Authorized Officer (AO) may require that settleable solids captured in settling ponds be used for reclamation.
- C. Fine sediment captured in the settling ponds shall be protected from washout and left in a stable condition at the end of each mining season to prevent unnecessary or undue degradation to the environment during periods of non-operation.
- D. Disturbed stream areas will be restored in order to facilitate natural restoration of fish and wildlife habitat.

The following reclamation performance standards may be applied to specific operations as appropriate:

1. Additional site reclamation may be required to control non-point source erosion. Reclamation could include seeding and/or fertilizing disturbed areas to stabilize erodible soils and accelerate natural succession.
2. Based on site compliance examinations or operator generated plan amendments, additional reclamation requirements may be applied.
3. BLM may also approve additional reclamation measures for offsite areas under BLM administration that would not otherwise be required by law if such measures were proposed by an operator. Plan approval will not be contingent upon such offsite reclamation.

The mitigating measures listed on pages 7 and 8 of this document are a part of this decision.

Alternatives Considered

The Proposed Action is described above in the Decision section.

Alternative A

Under this alternative, mining would be regulated in accordance with the BLM Surface Management Regulations in 43 CFR 3809 effective January 1, 1981, using the following performance standards:

Performance standards for reclamation of fish and wildlife habitats, and soil and vegetation stabilization would be less restrictive to mining activities than those standards required by the Proposed Action.

1. The water quality performance standards would be the EPA/ADEC standards of 0.2 ml/l settleable solids, .05 mg/l arsenic, and 5 NTU turbidity. No water quality variances would be incorporated in this alternative.
2. Disturbed topsoil and overburden would be stabilized to prevent erosion into the watershed, but the redistribution of these materials over the tailings would not be required.
3. Tailing piles and open mine cuts would be stabilized and reshaped to allow for natural restoration. This would probably be accomplished by leveling the mine cut and tailing piles.
4. Any constructed stream bypass would be stabilized or reinforced to make it the permanent stream channel.

Alternative B

This alternative would combine the standards from 43 CFR 3809 with standards established to meet the management goals of the Resource Management Plan for the watershed.

Water quality performance standards would be defined by EPA/ADEC regulations as 0.2 ml/l settleable solids, .05 mg/l arsenic, and 5 NTU turbidity. No water quality variance would be incorporated in this alternative.

A requirement that disturbed topsoil and overburden would be stabilized to prevent erosion and soil loss during operations would be made. After completion of mining on a site, the stockpiled material would be redistributed over the reshaped mine site to facilitate natural revegetation. Any stream bypass would be stabilized to allow for natural recovery of the stream channel.

Alternative C

This alternative focused on various standards proposed or under discussion by EPA and other agencies. The water quality performance standards for this alternative would be zero ml/l settleable solids, .05 mg/l arsenic, and zero NTU turbidity above natural conditions with no water quality variances.

Reclamation standards may include fertilizing and seeding or planting with native species, and rebuilding the creek channel. The creek would be designed to have pools, riffles, and other natural features. Fine materials from settling ponds may be required to be removed and redistributed over the tailings.

Alternative D

This is the "no mining," (i.e., no approvals) alternative referenced by the District Court in its Memorandum and Order of May 28, 1987, as amended. Under this alternative, no applications for mining, under either Plans of Operations or Notices, would be processed or approved by the BLM. Validity examinations would be conducted for each properly recorded federal mining claim, and the owner would be compensated accordingly.

Stabilization of areas disturbed after 1980 would be required on all federal claims, and restoration would be allowed to proceed by natural processes.

Alternative D is not provided for under either current statutes or regulations (General Mining Law of 1872; FLPMA Section 302; 43 CFR 2091.1, for accepting applications; 43 CFR 3809.1-6, for processing applications) and would therefore require a change in current law.

Environmentally Preferred Alternatives

Alternatives C and D could be considered the "environmentally preferred" alternatives. These, especially Alternative D, would cause the least damage to the biological and physical environment. They would also best protect and preserve historical, cultural, and natural resources.

Alternative C is the "environmentally preferred" alternative under the scenario of allowing further mining operations in the study area. This alternative was not chosen because BLM does not have the authority or responsibility to impose or directly enforce water quality standards under the Clean Water Act, 33 USC 1251 et seq. BLM's principle authority for the 43 CFR 3809 regulations is Section 302 of FLPMA that deals with the prevention of unnecessary or undue degradation to the public lands.

Alternative D would be the "environmentally preferred" alternative if water quality were to be maintained in a natural state. This alternative would result in no further surface disturbance caused by mining on federal claims, a decrease over time in non-point pollution sources, and the gradual revegetation of previously disturbed mining sites. Alternative D was not chosen because a change in current law and regulations would be required.

Summary of ANILCA Section 810 Findings

The Proposed Action, along with other alternatives for the management of placer mining within the Beaver Creek watershed was evaluated pursuant to the requirements of Section 810 of ANILCA regarding potential effects on subsistence uses and needs. These evaluations included consideration of the cumulative impacts from past mining, and other causes, as well as the effects of present and future mining. Also completed were the requirements to evaluate the availability of other lands for the purposes sought to be achieved, and other alternatives that would reduce or eliminate the use, occupancy or disposition of public lands needed for subsistence purposes. The resulting information and findings are found in Section 4.9 of the FEIS.

The findings for all alternatives, including the Proposed Action, were the same; namely, none would result in a significant restriction to subsistence uses. This is because the predicted impacts to subsistence uses, users, and resources under all alternatives were evaluated to be negligible or nonexistent. This conclusion was reached for each alternative because only negligible-to-no effects were predicted from any of the alternatives on animal populations, habitat, human access, or watershed water quality.

Management Considerations

The following factors were considered in the decision to adopt the Proposed Action:

- BLM does have the authority and responsibility to impose reclamation standards for mining operations on public lands. These reclamation standards will reduce the environmental impacts to soils, vegetation, wildlife, and water by enhancing vegetation regrowth on reclaimed mine sites. Proper reclamation reduces the revegetation recovery period and in

turn rapidly restores the disturbed site for other resources uses. Benefiting resource values will include: recreational opportunities, fish and wildlife habitats, watershed/water quality protection, aesthetic and other values.

- The Proposed Action allows for some potential social and economic benefits; i.e., one placer mine is known to have operated in the Beaver Creek watershed in 1987 and 1988. Employment associated with this operation in 1987 was estimated at two miners for one month due to late start up. With adoption of the Proposed Action it was assumed in the EIS that the total number of mines within the watershed would increase from one to five over the next ten years. Mining expenditures, output, employment, and earnings were also anticipated to increase accordingly.
- BLM does not have statutory authority or responsibility to impose or directly enforce water quality standards and effluent limitations guidelines. Those responsibilities are vested in the ADEC and EPA, respectively. However, compliance with ADEC and EPA water quality standards and effluent limitations guidelines is a condition of BLM's approval of a Plan of Operations under 43 CFR 3809. Therefore, water quality can be assured through the statutory, regulatory, and enforcement authority of those agencies. A violation of ADEC/EPA water quality standards/effluent limitations guidelines constitutes a violation of the approved Plan of Operations for which a notice of noncompliance will be issued by BLM.
- Any mining operation conducted in accordance with an approved Plan of Operations consistent with the Proposed Action and in conjunction with a site-specific EA will not normally cause unnecessary or undue degradation to the public lands.
- The Proposed Action is consistent with the Beaver Creek River Management Plan approved on October 6, 1983, and the White Mountains National Recreation Area Resource Management Plan approved on February 2, 1986.
- The Beaver Creek watershed was initially withdrawn from all forms of appropriation, including mineral location, under the 1872 Mining Law on November 16, 1978, by Public Land Order No. 5653. This mineral withdrawal was retained by Section 1312(b) of ANILCA on December 2, 1980. The Surface Mining Regulations (43 CFR 3809), became effective on January 1, 1981, and required in part that all operations on "areas withdrawn from operation of the mining laws in which valid existing rights are being exercised," above the level of casual use, would require approval as Plans of Operations. This specific requirement was deleted in BLM's amendment to the 43 CFR 3809 regulations that became effective on April 1, 1983. However, in a Memorandum and Order dated November 6, 1987, and a Minute Order From Chambers dated November 12, 1987, (see Sierra Club v Penfold, Civil Case A86-083), Judge von der Heydt declared BLM's 1983 amendments to the 43 CFR 3809 regulations invalid in Alaska. Due to the existing land withdrawals, mining operations within the Beaver Creek watershed, other than casual use, must be processed under 43 CFR 3809 as Plans of Operations.

The following factors were considered in the decision for not adopting the other alternatives:

- Alternative A does not require that stripped overburden and topsoil be respread as part of reclamation. This is not consistent with promulgated regulations found at 43 CFR 3809.1-3(d), that implements Section 302 of FLPMA.

Leaving the stream in a constructed bypass may not meet the requirements for rehabilitation of fish and wildlife habitat as required by 43 CFR 3809.1-3(d)(4). Construction and stabilization of a stream bypass in most cases will not provide a suitable channel for permanent stream location. In headwater mining operations, bypasses are constructed around the mining operation at an elevation that is often above the bottom of the mine cut. Over time, the stream channel will naturally relocate to the valley's low-point which is generally through the mine cut area. As part of site reclamation, the stream channel will be located at the lowest point of the area being drained if appropriate.

- Alternative B may be in compliance with the regulations for operations where the bypass is located at or below the mine cut. If this criteria is not met, the stabilized bypass will not provide a permanent channel suitable for fish and wildlife habitat as required by 43 CFR 3809.1-3(d). For additional discussion on bypass/stream channel reclamation see Alternative A above.
- Alternative C - BLM does not have the authority or responsibility to impose or enforce water quality standards and effluent limitations guidelines contained in this alternative.

The requirement for reclamation of disturbed stream areas to establish pools, riffles, and other natural features is not always necessary. This is an economic consideration that may create an unnecessary financial burden for the miner. The U.S. Fish and Wildlife Service commented on the Beaver Creek draft EIS in a letter dated June 14, 1988, as follows:

"The requirement to rebuild stream channels with pools, riffles, and other natural features, also desirable, would normally not be necessary. If stream reclamation provided for appropriate gradients and configurations, natural equilibria would result in development of pools and riffles. Reseeding native species should not be necessary in most cases, although fertilization may be warranted in situations where rapid revegetation is necessary. Respreading fines from settling ponds over mine tailings may not always be necessary, and may be undesirable if such fines contain high levels of metals and/or arsenic."

- Alternative D is not provided for either in current statutes (e.g., the General Mining Law of 1872 and FLPMA), or not supported by the regulations (43 CFR 2091.1 for accepting applications and 43 CFR 3809.1-6 for processing applications) and would therefore require a change in current law.

Mitigation for Decision (Proposed Action)

As discussed in the EIS (Final EIS Section 4.12) a broad range of mitigating measures are technically feasible to prevent unnecessary or undue degradation by placer mining and associated activities in the Beaver Creek watershed. An environmental analysis of the proposed Plan of Operation will identify those mitigation measures that are appropriate as a condition for plan approval to prevent unnecessary or undue degradation while mitigating cumulative environmental impacts. Not all of the mitigation measures will be necessary or useful in all situations.

I. Accepted Mitigation

A. Access

1. Location - the location of proposed access routes may be modified to avoid crucial or sensitive areas. This measure will most often be used to avoid or reduce impacts to soils, wetlands, floodplains, water, wildlife, Threatened and Endangered species, cultural, recreation, and visual resources.
2. Season and frequency of use - if not already established by existing designations, the season and frequency of use of access routes may be stipulated to mitigate unnecessary or undue environmental impacts to soils, wildlife, Threatened and Endangered species, and recreation resources.

B. Facilities

Location - Proposed facilities, including ancillary storage, will be located to avoid impacts to crucial or sensitive areas. This measure will be used to mitigate impacts to such resources as vegetation, soils, cultural, visual, wildlife, Threatened and Endangered species, water, wetlands, and floodplains.

C. Operations

A reclamation plan will be required as a part of the plan submission and will include, at a minimum, the following:

- Stockpiling and stabilization of overburden and topsoil.
- Site reshaping to approximate surrounding physiography.
- Shaping of overburden and spreading topsoil.
- Restoring the streambed to a stable condition that will provide for recovery of fish and wildlife habitat.

These measures will be used to mitigate potential impacts to wildlife, Threatened and Endangered species, visual, soils, cultural, vegetation, wetlands, floodplains, and water resources. Reclamation of the newly disturbed site will be done to the standards identified under the Proposed Action. If practical, and with the operators concurrence, reclamation of previously disturbed areas that are creating adverse environmental impacts can be incorporated into the operators reclamation plan. More detailed or stringent reclamation measures, including reseeding and/or fertilizing, bypass design, runoff treatment, and more comprehensive habitat restoration, may be required if the Environmental Assessment and/or field compliance examinations identify such measures as being required to prevent unnecessary or undue degradation.

All practical means to prevent unnecessary or undue degradation at this level of analysis have been adopted. Analysis of site-specific operations may identify other practical means to avoid or reduce environmental impacts at specific locations.

II. Rationale for Not Adopting the Potential Mitigation Measures

The reasons for not adopting the following mitigation measures that were discussed in Section 4.12 of the final EIS are described below:

A. Access

1. Interagency coordination is not impact mitigation per se. This is a requirement of the NEPA process and is a standard BLM procedure during the application and mining process.

2. Monitoring of active mining operations is discussed in the Inspection, Compliance, and Enforcement section below.

3. If impacts to cultural resources listed on or eligible for inclusion in the National Register of Historic Places cannot be avoided through relocation of the proposed access routes, specific mitigation will be developed through the consultation process required in 36 CFR 800.

B. Facilities

Constraining the season and/or of frequency of use of facilities associated with a mining claim may violate the miner's right to develop and extract the mineral estate as granted by the Mining Law of 1872, as amended. As long as occupancy is reasonably incident to the level of the mining activity, this use is authorized by law, and can be controlled only to the extent that such use is regulated by other statutes.

C. Operations

1. Zero discharge/100% recycle is the standard from Alternative C and is beyond BLM's jurisdiction to independently impose. Should such a standard be required by EPA or ADEC, meeting the standard would be applicable and become a condition of the approval of any Plan of Operations.

2. Constraining siting and timing of operations on a mining claim is beyond the scope of BLM's 43 CFR 3809 regulations.

Inspection, Compliance, and Enforcement

Operations in the Beaver Creek watershed will be inspected at least three times per mining season as required in the February 6, 1986, Record of Decision for the White Mountains National Recreation Area Resource Management Plan.

If the AO determines, in his/her review of an operator submitted Plan, that insufficient data exists from which to make an appropriate decision to either proceed and approve the Plan or to delay operations pending submission of additional information, BLM will inform the operator that the Plan cannot be approved until an on-site inspection of the proposed operation is made. In all cases, BLM will inform the operator that no activity can proceed without an approved Plan and of the reason for the delay.

Operations that are found to be in noncompliance will be issued a Notice of Noncompliance and supplemental inspection(s) will be performed in accordance with the terms of the Notice of Non-compliance. If the operator does not bring the operation into compliance, BLM may obtain a court order enjoining further operations until compliance is achieved.

Operators who establish a record of noncompliance will be required to submit a surface reclamation bond in compliance with the Bureau's existing bonding policy, the 43 CFR 3809 regulations and the Alaska State 3809 Handbook.

The ADEC and/or EPA will be notified if noncompliance with EPA's effluent limitations guidelines or State water quality standards is suspected.

Public Involvement

Special interest group and public concern developed considerable media attention on the EIS process and generated public discussion of the issues.

A Notice of Intent to prepare an EIS on the Beaver Creek watershed was published in the Federal Register on August 18, 1987, (52 F.R. 30961). To determine the scope of the analysis and identify EIS issues, public meetings were held in Birch Creek Village, Central, Livengood, Chicken, Fairbanks, Anchorage, and Minto. These meetings were attended by the public, representatives of special interest groups, and industry representatives. A list of issues was developed and printed in the draft EIS. The scope of this analysis was influenced by both written and verbal comments.

The draft EIS was mailed to various organizations, governmental agencies and individuals in early April, 1988; the Notice of Availability appeared in the Federal Register on April 15, 1988, (52 F.R. 12608). Public meetings were held in Anchorage, Fairbanks, Beaver, Birch Creek Village, Central, and Fort Yukon to gather written and verbal comments on the Beaver Creek draft EIS. Ninety-four individuals attended these meetings and 46 oral comments were received.

Written comments were also solicited and received during the 60-day comment period. Written and oral comment concerns were responded to and the responses printed in the final EIS. This record of decision reflects consideration of all written and oral comments received. The final EIS was distributed in mid-November, 1988. The Federal Register Notice of Availability appeared on November 18, 1988, (53 F.R. 46654).

Specific coordination meetings were held with various State of Alaska agencies such as the Department of Natural Resources, Department of Environmental Conservation, Department of Fish and Game, and the Division of Governmental Coordination. Meetings were also held with the U.S. Environmental Protection Agency, the National Park Service, the U.S. Bureau of Mines, the U.S. Fish and Wildlife Service, and the U.S. Army Corps of Engineers.

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